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(54) **METHOD OF FORMING A DISPOSABLE, REFASTENABLE ABSORBENT ARTICLE**

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See application file for complete search history.

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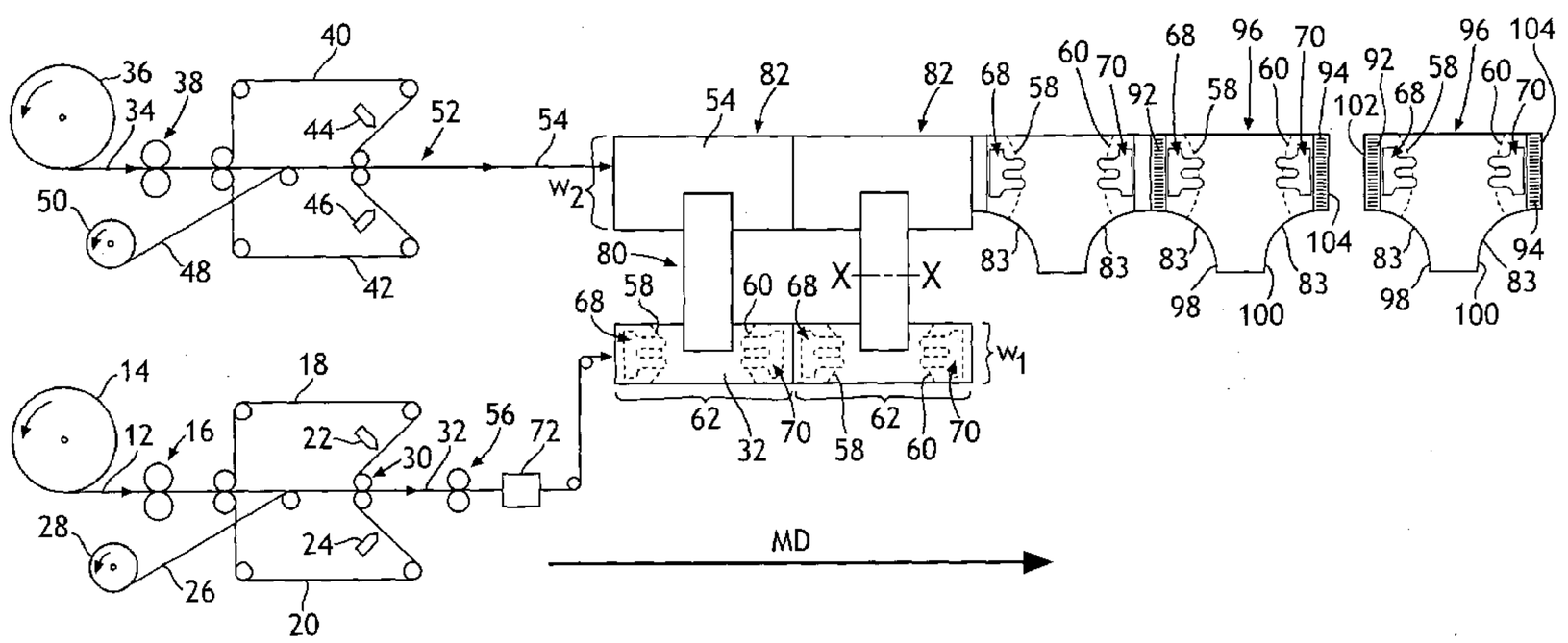
(57) **ABSTRACT**

A method of forming a disposable, refastenable absorbent article is disclosed. The method includes directing a first material parallel to and spaced apart from a second material. A pair of lines of perforations is formed across the width of the first material. A pair of attachment members is then secured to the first material such that each bridges across one of the pair of lines of perforations. An absorbent assembly is secured across the first and second materials to form a subassembly. The subassembly is then folded and the first and second materials are bonded together by first and second seam lines. The first and second materials are then separated at locations outward from each of the first and second seam lines to form a disposable, refastenable absorbent article.

20 Claims, 3 Drawing Sheets



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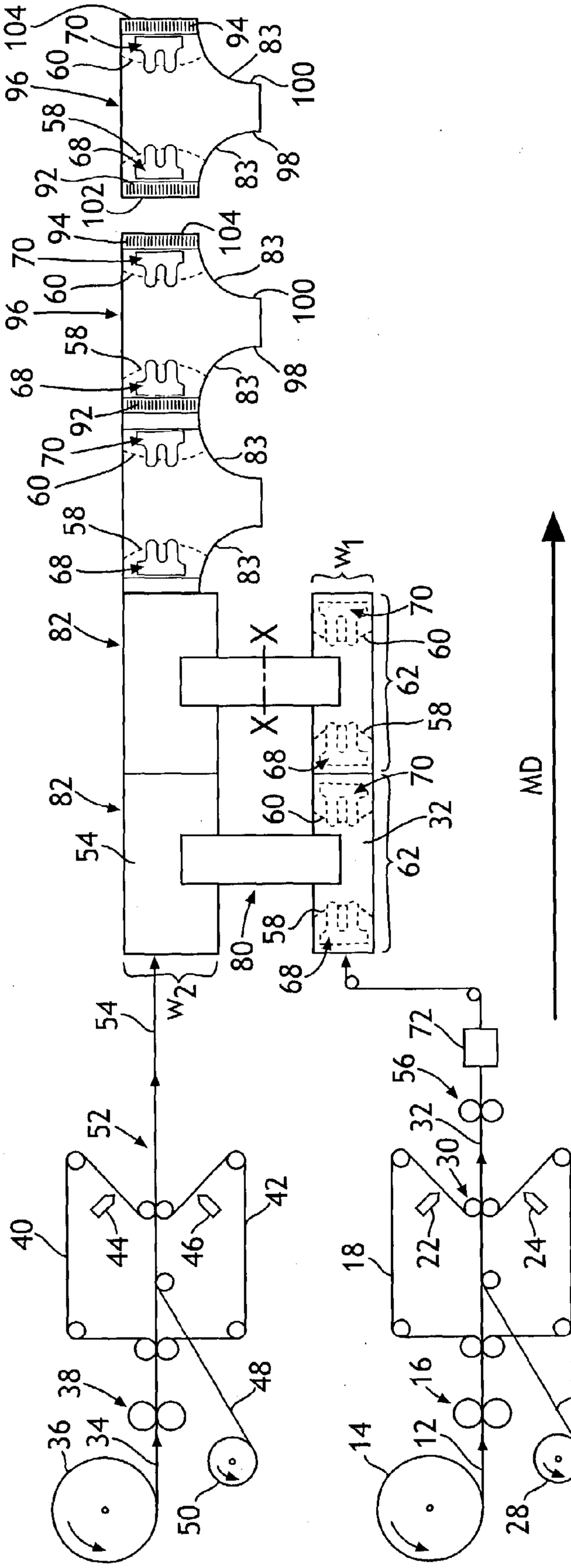

FIG. 1

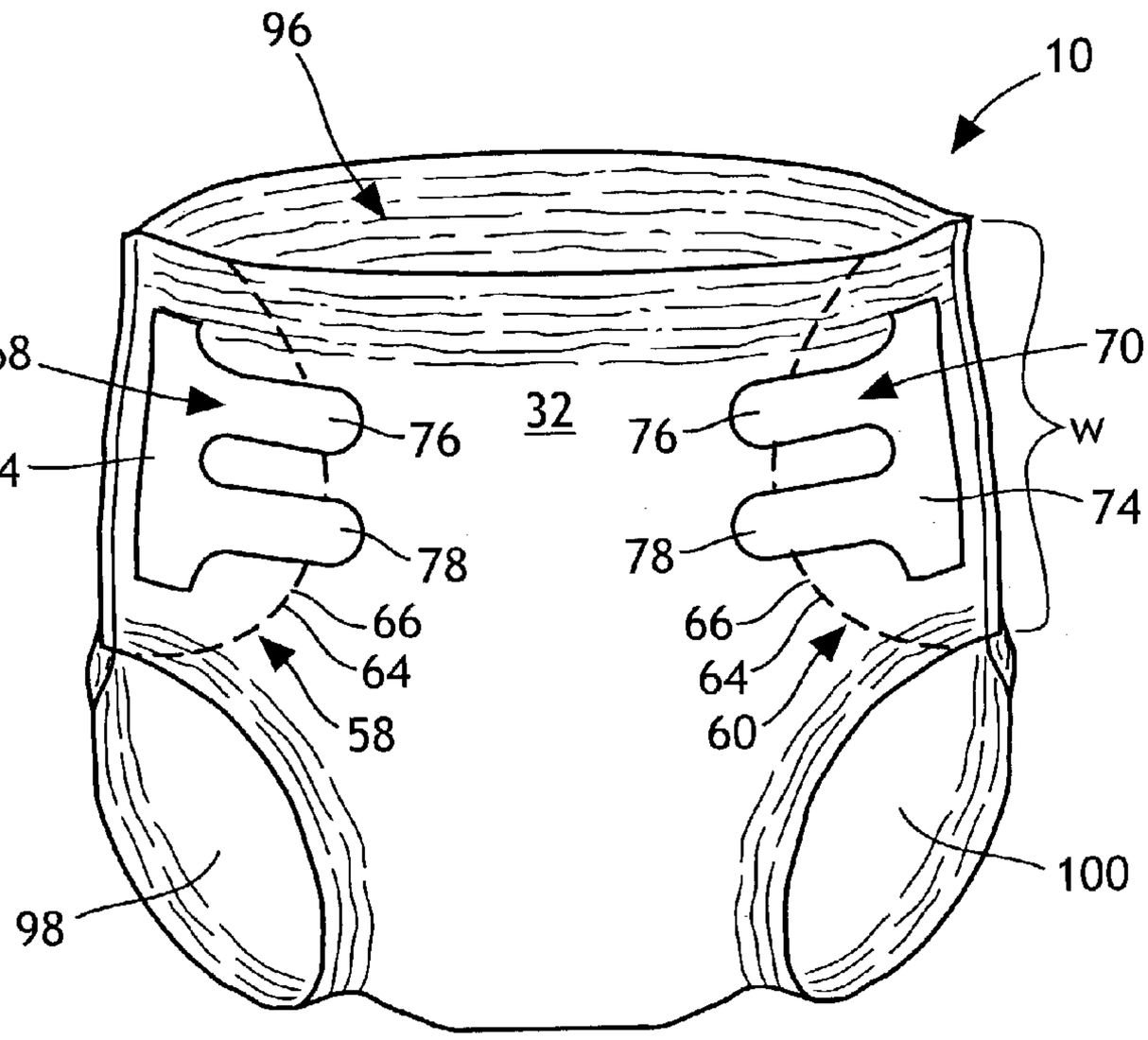

FIG. 2

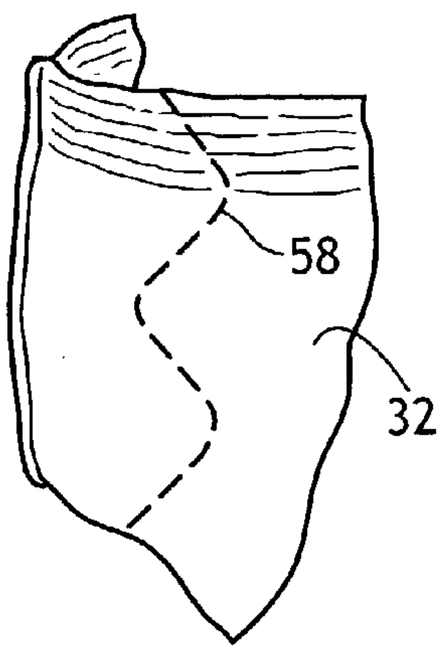

FIG. 3

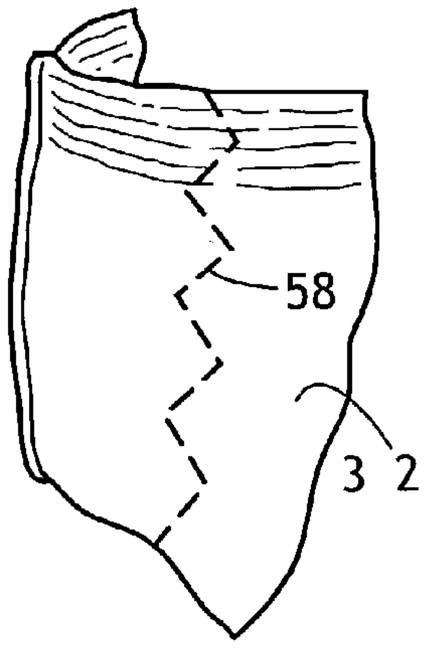

FIG. 4

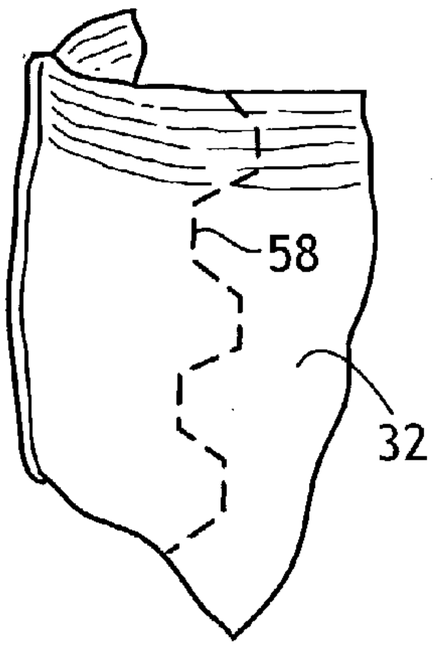

FIG. 5

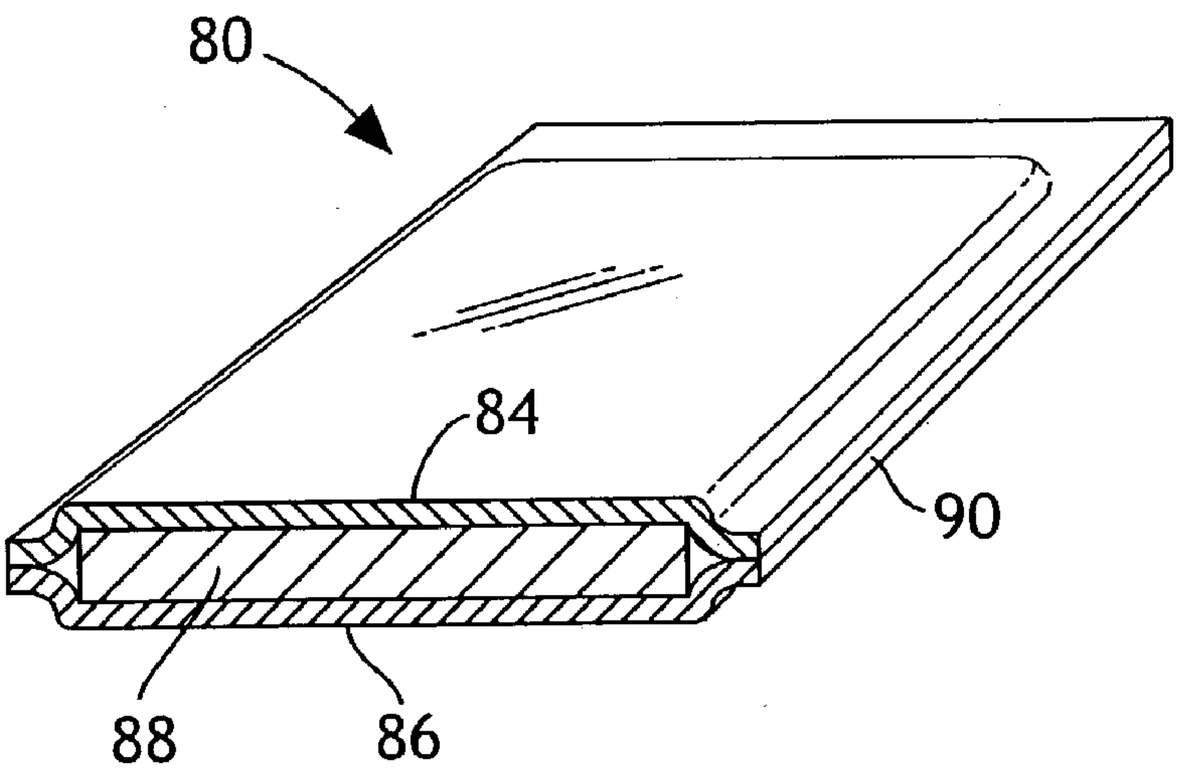

FIG. 6

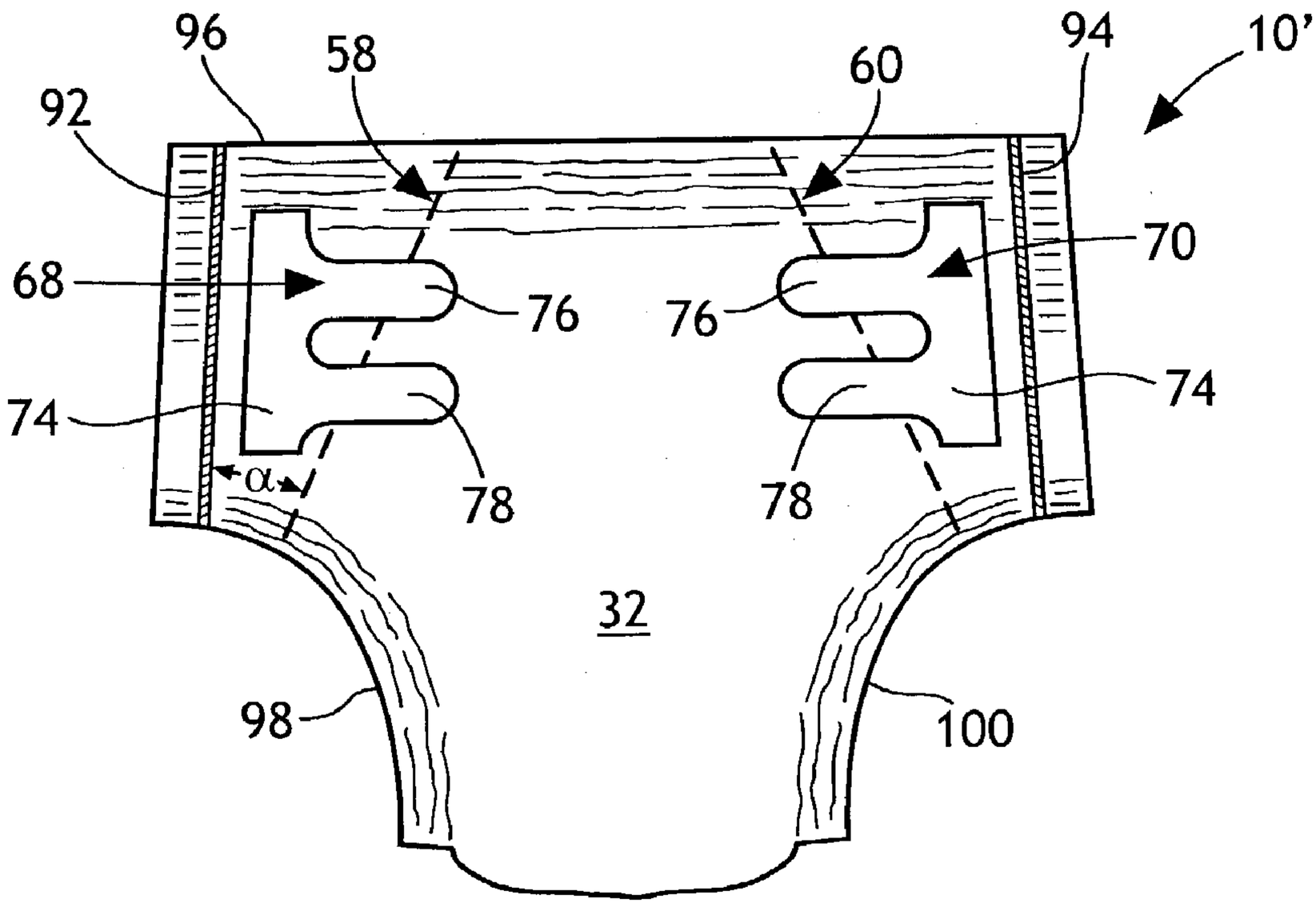

FIG. 7

METHOD OF FORMING A DISPOSABLE, REFASTENABLE ABSORBENT ARTICLE

BACKGROUND OF THE INVENTION

Disposable, refastenable absorbent articles for absorbing human discharges can appear similar in size and shape to regular cloth underwear which is designed to be laundered and reused two or more times. A disposable, refastenable absorbent article is an article intended to be worn by persons, such as infants, toddlers, or adults, which is designed for single use or temporary use and is meant to be disposed of after being used once instead of being laundered or dry cleaned for re-use. Some examples of disposable, refastenable absorbent articles include infant diapers, training pants, adult incontinence garments, feminine menstrual pants, etc.

Some disposable, refastenable absorbent articles manufactured today resemble regular cloth underwear in that they have a waist opening and a pair of leg openings. Such disposable, refastenable absorbent articles can be pulled up around the torso of a user in a similar fashion as regular cloth underwear. Still other disposable, refastenable absorbent articles contain an attachment mechanism that will allow the article to be opened into a flat configuration prior to being placed around the torso of a user. This design is beneficial for bed bound users who may be immobile and who need assistance in securing the article in place. Still other disposable, refastenable absorbent articles contain attachment means for opening and closing the waist opening after the article has been positioned around the torso of a user. This feature is advantageous in that the user does not have to undress when there is a desire to check the status of the absorbent article. One such refastenable absorbent article uses a pair of straight perforation lines that extend from the waist opening to the pair of leg openings. The straight perforation lines are designed to be broken either prior to positioning the absorbent article around the user's torso or while the absorbent article is already positioned about the user's torso. The pair of attachment members is then utilized to refasten the absorbent article so that it is snug about the user's torso. This present design suffers from two deficiencies. Namely, a majority of each line of perforations is visually hidden by the attachment members and some users cannot see them and thereby may not even know that they are present. Second, each line of perforations may be ergonomically hard to tear open by older adults, some of who may be suffering from arthritis, because the straight perforation lines are aligned adjacent and parallel to the side seams.

Now a method of forming a disposable, refastenable absorbent article has been invented that uses a pair of lines of perforations that are aligned non-parallel to the side seams to make them more visually noticeable. The configuration of the pair of lines of perforations also enable the user to easily grasp the waist band on either side of each line of perforations and tear them open. The disposable, refastenable absorbent article also possesses an aesthetically pleasing design with improved fit around the human torso.

SUMMARY OF THE INVENTION

Briefly, this invention relates to a method of forming a disposable, refastenable absorbent article. The method includes the steps-of directing a first material parallel to and spaced apart from a second material. The first material has a predetermined width. A pair of lines of perforations is formed across the width of the first material. A pair of attachment members is then secured to the first material such that each attachment member bridges across one of the lines of perforations. One end of each of the pair of attachment members is removeably attached to the first material. An absorbent assembly is secured across the first and second materials to form a subassembly having a transverse centerline. The subassembly is then folded on the transverse centerline and the first and second materials are bonded together by first and second seam lines. Each of the first and second seam lines is aligned non-parallel to and situated outward from one of the lines of perforations to form a waist opening and a pair of leg openings. The first and second materials are then separated at locations outward from each of the first and second seam lines to form a disposable, refastenable absorbent article.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a schematic depicting a method of forming a disposable, refastenable absorbent article.

FIG. **2** is a perspective view of a disposable, refastenable absorbent article for absorbing human discharge that includes a pair of lines of perforations aligned non-parallel to a pair of seam lines and further includes a pair of attachment members which bridge over a portion of the pair of lines of perforations.

FIG. **3** is a front view of a line of perforations having a sinusoidal configuration and arranged in a non-parallel relationship to the seam line.

FIG. **4** is a front view of a line of perforations having a herringbone configuration.

FIG. **5** is a front view of a line of perforations having a saw tooth configuration.

FIG. **6** is a sectioned, perspective view of an absorbent assembly.

FIG. **7** is a plane view of a disposable, refastenable absorbent article having a pair of linear lines of perforations aligned at an angle so as to be non-parallel to the seam lines.

DETAILED DESCRIPTION

Referring to FIG. **1**, a schematic is shown depicting a method of forming a disposable, refastenable absorbent article **10**. The term "disposable absorbent article" is used herein to define an article that is intended to be worn by persons, including infants, toddlers or adults, which is designed for single use or temporary use and is meant to be disposed of after being used once instead of being laundered or dry cleaned for re-use. The absorbent article **10** is designed to absorb and/or retain one or more bodily discharges of waste material such as urine, perspiration, excrement, feces, menses, menstrual fluid, as well as other liquid and/or solid waste. By "refastenable" is meant that the absorbent article **10** includes an opening mechanism and an attachment mechanism which will permit the article **10** to be opened and closed at least once. The refastenable absorbent article **10** can be pulled up around the torso of a user just like regular cloth underwear and can be later opened to inspect the interior of the absorbent article **10**. Alternatively, the absorbent article **10** can be opened into a flat configuration prior to being placed about the torso of a user and then closed. The attachment mechanism also allows the waist opening of the absorbent article **10** to be snugly adjusted for a more secure fit, if desired.

The method includes the steps of directing or routing a first material **12** from a supply roll **14** through a splitter **16**.

The first material **12** can be any natural or synthetic material that has been formed into a woven or non-woven web. The first material **12** can be an elastic material, an elastic laminate, a thermoplastic film, a spunbond web, a bonded carded web, a stretch bonded laminate, etc. Spunbond is a non-woven material that works well in constructing a disposable absorbent article **10**. At the splitter **16**, the first material **12** is divided or cleaved lengthwise into a first elongated strip **18** and a second elongated strip **20**. Alternatively, one can start with two separate materials each wound on a supply roll. In this embodiment, no splitter **16** is required.

A construction adhesive is applied to a surface of the first elongated strip **18** by an adhesive spray unit **22**. Similarly, a construction adhesive is applied to a surface of the second elongated strip **20** by an adhesive spray unit **24**. Various kinds of hot or cold melt adhesives can be utilized and these are known to those skilled in the art. It should also be noted that the construction adhesive can be applied to only one surface of the first or second elongated strips, **18** or **20** respectively, if desired.

An elastic material **26**, in the form of one or more elastic strands, one or more elastic ribbons, an elastic web, etc. is routed from a supply roll **28** toward a nip **30**. Desirably, two or more elastic strands **26** are present. More desirably, from between about 3 to about 30 elastic strands are present. Most desirably, from between about 4 to about 20 elastic strands are present. For the purpose of discussion only, the elastic material **26** will be described below as including a plurality of elastic strands **26**. The elastic strands **26** can be formed from LYCRA® or from any other elastic material known to those skilled in the art. LYCRA® is a registered trademark of E. I. Du Pont De Nemours & Co. having an office at 1007 Market Street, Wilmington, Del. 19898. The diameter and/or cross-sectional configuration of the elastic strands **26**, the decitex (weight in grams per 10,000 meters of a strand) of the elastic strands **26**, and the tension imparted into the elastic strands **26** can all be varied to suit one's particular product needs.

At the nip **30**, the first elongated strip **18** is positioned over the second elongated strip **20** and the two strips **18** and **20** are aligned. The elastic strands **26** are secured between the first and second elongated strips, **18** and **20** respectively, to form a first elastic laminate **32**. The first elastic laminate **32** has a predetermined width (w_1). The elastic strands **26** can be spaced apart and aligned parallel to one another. Alternatively, the elastic strands **26** can abut one another, be aligned at an angle to one another or even overlap one another. The elastic strands **26** can be uniformly or randomly arranged relative to one another. The elastic strands **26** can occupy a portion of the surface area of the first elastic laminate **32** or the entire surface area of the first elastic laminate **32**. Furthermore, the elastic strands **26** can be located in one or more designated areas of the laminate **32**, if desired.

A second material **34** is directed or routed from a supply roll **36** through a splitter **38**. The second material **34** can be any natural or synthetic material that has been formed into a woven or non-woven web. The second material **34** can be an elastic material, an elastic laminate, a thermoplastic film, a spunbond web, a bonded carded web, a stretch bonded laminate, etc. Spunbond is a non-woven material that works well in constructing a disposable absorbent article **10**. At the splitter **38**, the second material **34** is divided or cleaved lengthwise into a first elongated strip **40** and a second elongated strip **42**. Alternatively, one can start with two separate materials each wound on a supply roll. In this embodiment, no splitter **38** is required.

A construction adhesive is applied to a surface of the first elongated strip **40** by an adhesive spray unit **44**. Similarly, a construction adhesive is applied to a surface of the second elongated strip **42** by an adhesive spray unit **46**. Various kinds of hot or cold melt adhesives can be utilized and these are known to those skilled in the art. It should be noted that the construction adhesive can be applied to only one surface of the first or second elongated strips, **40** or **42** respectively, if desired.

An elastic material **48**, in the form of one or more elastic strands, one or more elastic ribbons, an elastic web, etc., is routed from a supply roll **50** toward a nip **52**. Desirably, two or more elastic strands are present. More desirably, from between about 3 to about 30 elastic strands are present. Most desirably, from between about 4 to about 20 elastic strands are present. For the purpose of discussion only, the elastic material **48** will be described below as including a plurality of elastic strands **48**. The elastic strands **48** can be formed from LYCRA® or from any other elastic material known to those skilled in the art. LYCRA® is a registered trademark of E. I. Du Pont De Nemours & Co. having an office at 1007 Market Street, Wilmington, Del. 19898. The diameter and/or cross-sectional configuration of the elastic strands **48**, the decitex (weight in grams per 10,000 meters of a strand) of the elastic strands **48**, and the tension imparted into the elastic strands **48** can all be varied to suit one's particular product needs.

At the nip **52**, the first elongated strip **40** is positioned over the second elongated strip **42** and the two strips **40** and **42** are aligned. The elastic strands **48** are secured between the first and second elongated strips, **40** and **42** respectively, to form a second elastic laminate **54**. The second elastic laminate **54** has a predetermined width (w_2). The width (w_2) of the second elastic laminate **54**,can be less than, equal to, or be greater than the width (w_1) of the first elastic laminate **32**. Desirably, the width (w_2) of the second elastic laminate **54** will be approximately equal to the width (w_1) of the first elastic laminate **32**. The elastic strands **26** can be spaced apart and aligned parallel to one another. Alternatively, the elastic strands **26** can abut one another, be aligned at an angle to one another or even overlap one another. The elastic strands **26** can be uniformly or randomly arranged relative to one another. The elastic strands **26** can occupy a portion of the surface area of the second elastic laminate **54** or the entire surface area of the second elastic laminate **54**. Furthermore, the elastic strands **26** can be located in one or more designated areas of the second elastic laminate **54**, if desired.

It should be noted that if one or both of the first and second materials, **12** and **34** respectively, is constructed from an elastic material, then there is no need to practice the step of securing elastic strands to form a laminate. For purposes of discussion, the invention will be described below as using the two elastic laminates **32** and **54**.

Referring to FIGS. **1** and **2**, the first elastic laminate **32** is directed in a machine direction (MD), moving from left to right in FIG. **1**, to a perforation unit **56**. The perforation unit **56** is capable of forming at least one line of perforations **58** in a predetermined length **62** of the first elastic laminate **32**. Desirably, the perforation unit **56** forms a pair of lines of perforations **58** and **60** in each predetermined length **62** of the first elastic laminate **32**. Each of the lines of perforations **58** and **60** extends across the width (w_1) of the first elastic laminate **32**. Each of the pair of lines of perforations **58** and **60** are tearable by applying a predetermined amount of pressure to either side thereof. The amount of pressure

needed to pull the material apart and separate the lines of perforations **58** and **60** should be relatively small. The lines of perforations **58** and **60** can be linear or non-linear on configuration. In FIG. **2**, the lines of perforations **58** and **60** have an arcuate configuration, specifically a semi-circular configuration. Desirably, the lines of perforations **58** and **60** can have a unique shape with each being a mirror image of the other. A convex or a concave configuration works well because a large portion of each of the lines of perforations **58** and **60** will be visible in the finished disposable, absorbent article **10**.

Referring to FIGS. **3–5**, three different configurations for the pair of lines of perforations **58** and **60** are depicted. It should be noted that many other configurations can also be used. In FIG. **3**, the line of perforations **58** is shown having a sinusoidal configuration. The number of lobes in the sinusoidal pattern can vary to suit one's particular needs. In FIG. **4**, the line of perforations **58** is shown having a herringbone configuration. The herringbone configuration is a pattern of oblique parallel lines arranged as single lines alternating in direction. In FIG. **5**, the line of perforations **58** is shown having a saw tooth configuration where the lines are arranged in a serrated fashion.

Referring again to FIG. **2**, each of the lines of perforations **58** and **60** consist of multiple slits or cuts **64** aligned adjacent to an uncut area **66**. The length of each of the slits or cuts **64** can be less than, equal to, or be greater than the length of at least one of the uncut areas **66**. The ratio between the length of a slit or cut **64** to an uncut area **66** can be adjusted to increase or decrease the amount of force required to break the lines of perforations **58** and **60**. The type of material into which the lines of perforations **58** and **60** are formed, the thickness of the material, the configuration of the lines of perforations **58** and **60**, as well as other features, will all have an impact on the amount of force needed to break the lines of perforations **58** and **60**. It should also be noted that the amount of force needed to start to break the lines of perforations **58** and **60** may be slightly greater than the amount of force needed to continue to tear open the lines of perforations **58** and **60**. Alternatively, a nick or notch, not shown, can be formed at the upper end of each of the lines of perforations **58** and **60** to reduce the amount of force needed to tear open the perforations **58** and **60**.

The lines of perforations **58** and **60** can be formed such that each of the slits or cuts **64** has a length that is equal to the length of each of the uncut areas **66**. Alternatively, the length of the land and/or slit or cut areas, **64** and **66** respectively, can vary along a portion of or over the total length of each of the lines of perforations **58** and **60**. It has been found that when the length of the slits or cuts **64** is greater than the length of the uncut areas **66**, that the lines of perforations **58** and **60** can be easily broken. It is important to design the slits or cuts and uncut areas, **64** and **66** respectively, such that the lines of perforations **58** and **60** are easy for the user to break yet are strong enough so as not to break prematurely. Good results have been obtained by dimensioning the length of each of the slits or cuts **64** to be at least two times greater than the length of each of the uncut areas **66**. Desirably, the length of each of the slits or cuts **64** will be at least three times greater than the length of each of the uncut areas **66**. More desirably, the length of each of the slits or cuts **64** will be at least four times greater than the length of each of the uncut areas **66**.

Referring again to FIGS. **1** and **2**, the method further includes the step of securing a pair of attachment members **68** and **70** to the first elastic laminate **32** at a bonding station **72**. The pair of attachment members **68** and **70** can vary in size, shape, design, number of tabs, etc. As depicted, each of the pair of attachment members **68** and **70** has a base portion **74**, a first tab **76** and a second tab **78**. The base portion **74** can be secured to the first elastic laminate **32** by an adhesive, by ultrasonics, by a mechanical mechanism, by heat, by pressure, by heat and pressure, by a combination of the aforementioned, or by other means known to those skilled in the art. It should be noted that the base portion **74** can be adhesively attached and then be ultrasonically bonded to provide for a more secure attachment. The base portion **74** is designed to be permanently secured to the first elastic laminate **32** such that it cannot be removed without tearing or destroying the material to which it is secured.

The first and second tabs, **76** and **78** respectively, of each attachment member **68** and **70** are designed to extend over or bridge across one of the pair of lines of perforations **58** or **60**. Each of the first and second tabs, **76** and **78** respectively, is removeably attached or secured to the first elastic laminate **32**. Each of the first and second tabs, **76** and **78** respectively, can vary in shape, size, dimension, thickness, etc. It should be noted that the shape of the pair of lines of perforations **58** and **60** may dictate how long or narrow each of the tabs **76** and **78** has to be. The first and second tabs, **76** and **78** respectively, are designed to engage and be attached to the first elastic laminate **32**, be opened or separated from the first elastic laminate **32** and then be reattached to the first elastic laminate **32** at least once. Desirably, the first and second tabs, **76** and **78** respectively, are designed to be attached to the first elastic laminate **32**, be separated or removed from the first elastic laminate **32**, and then be reattached to the first elastic laminate **32** at least two times. More desirably, the first and second tabs, **76** and **78** respectively, are designed to be attached to the first elastic laminate **32**, be separated from the first elastic laminate **32** and then be reattached to the first elastic laminate **32** several times.

Still referring to FIG. **1**, the method also includes the step of positioning and securing an absorbent assembly **80** perpendicularly across the first and second materials, **12** and **34** respectively. In FIG. **1**, the first and second materials, **12** and **34** respectively, are the first and second elastic laminates, **32** and **54** respectively. One will notice that the first elastic laminate **32** is aligned approximately parallel to the second laminate **54**. Desirably, the first elastic laminate **32** is aligned parallel to and is spaced apart from the second elastic laminate **54**. The distance the first elastic laminate **32** is spaced apart from the second elastic laminate **54** can vary depending on the exact size of an absorbent article one desires to manufacture. For example, for a small size absorbent article **10** that may be designed for a baby, the distance between the first and second laminates, **32** and **54** respectively, can be relatively small. In this case, the distance may range from between about 1 inch (about 2.54 centimeters (cm)) to about 6 inches (about 15.2 cm). For a large adult incontinence article, the distance between the first and second laminates, **32** and **54** respectively, can be relatively large. For a large adult incontinence article, the distance may range from between about 4 inches (about 10 centimeters (cm)) to about 20 inches (about 51 cm).

The absorbent assembly **80** can be permanently or temporarily secured to the first and second materials, **12** and **34** respectively, or to the first and second elastic laminates, **32** and **54** respectively, to form a subassembly or chassis **82**. The subassembly **82** has a transverse centerline X—X. The subassembly **82** also has a generally H-shaped configuration and some of the material located in the second elastic laminate **54** and even in the absorbent assembly **80**, can be cut or formed into a curved or angled section **83**. The curved

or angled section **83** is formed on each side of the absorbent assembly **80** and serves to provide a good fit around the user's thighs. The curved or angled sections **83** will form a portion of each leg cutout. The absorbent assembly **80** can be secured to the first and second elastic laminates, **32** and **54** respectively, by a construction adhesive, by ultrasonics, by a mechanical mechanism, such as sewing, by a combination of the aforementioned attachment mechanisms or by other means known to those skilled in the art. Desirably, a hot or a cold melt adhesive is used to form a permanent attachment between the absorbent assembly **80** and the first and second materials, **12** and **34** respectively, or between the absorbent assembly **80** and the first and second elastic laminates, **32** and **54** respectively.

Referring now to FIG. **6**, a representation of an absorbent assembly **80** is shown. The absorbent assembly **80** includes a liquid permeable bodyside liner **84**, a liquid-impermeable backsheet **86** and an absorbent **88** positioned therebetween. One or more layers of absorbent **88** can be present. Furthermore, the absorbent **88** can contain a superabsorbent material, if desired. The liner **84** and the backsheet **86** are joined together to form an outer periphery **90** that completely surrounds and encloses the absorbent **88**. The absorbent assembly **80** can then be positioned over a portion of the first and second materials, **12** and **34** respectively, or over a portion of the first and second elastic laminates, **32** and **54** respectively, such that the backsheet **86** contacts and is secured to the first and second elastic laminates, **32** and **54** respectively. A permanent attachment works well but an attachment that allows the absorbent assembly **80** to float or move relative to the first and second laminates **32** and **54** can also be utilized.

Referring again to FIGS. **1** and **2**, the method further includes folding the subassembly **82** along the transverse centerline X—X. The first and second elastic laminates **32** and **54** are then bonded together by a first seam line **92** and a second seam line **94**. Desirably, the seam lines **92** and **94** are formed by ultrasonic bonds although other bonding methods can be used. Each of the seam lines **92** and **94** is located laterally outward from one of the pair of lines of perforations **58** and **60** to form a waist opening **96** and a pair of leg openings **98** and **100**. Desirably, each of the first and second seam lines, **92** and **94** respectively, are aligned non-parallel to one of the pair of lines of perforations **58** and **60**. The first and second materials, **12** and **34** respectively, or the first and second elastic laminates, **32** and **54** respectively, are then separated by cut lines **102** and **104**. The cut lines **102** and **104** are made at locations laterally outward of the first and second seam lines, **92** and **94** respectively, to form the disposable, refastenable absorbent article **10**. The cut lines **102** and **104** can be formed parallel to the first and second seam lines, **92** and **94** respectively. Desirably, the cut lines **102** and **104** are made within about 2 inches (about 5 cm) of the first and second seam lines, **92** and **94** respectively. More desirably, the cut lines **102** and **104** are made within about 1 inch (about 2.5 cm) of the first and second seam lines, **92** and **94** respectively. The cut lines **102** and **104** can be formed by a knife, a die cutter, a water jet, etc. The cut lines **102** and **104** allow for a multiplicity of refastenable absorbent articles **10** to be sequentially formed.

Referring now to FIG. **7**, an alternative embodiment is depicted showing a disposable, refastenable absorbent article **10'** having a pair of linear perforation lines **58** and **60**. The pair of linear perforation lines **58** and **60** is aligned at an angle to the seam lines **92** and **94**. Each of the lines of perforations **58** and **60** taper down and out from the waist opening **96** to one of the leg openings **98** or **100** so as to be aligned non-parallel to one of the adjacent seam lines **92** or **94**. Each of the pair of lines of perforations **58** and **60** is aligned at an acute angle a to one of the adjacent seam lines **92** or **94**. The angle α can vary from between about 5 degrees to about 60 degrees. Desirably, the angle α can vary from between about 10 degrees to about 45 degrees. More desirably, the angle α can vary from between about 15 degrees to about 35 degrees. At least about 25% of each of the angled lines of perforations **58** and **60** are visible even when partially covered by the tabs **76** and **78** of one of the attachment members **68** and **70**. This visibility is important for it will allow the user of the absorbent article **10** or **10'** to readily see where the lines of perforations **58** and **60** are located.

When the disposable, refastenable absorbent article **10** or **10'** is an incontinent undergarment designed to be worn by older adults who may suffer from poor eye sight, dementia or possibly arthritis, it is best to make them consciously aware of the presence and location of the pair of lines of perforations **58** and **60**. This will aid them in being able to tear the lines of perforations **58** and **60**. Also, when the user knows that the attachment members **68** and **70** can be released and reapplied both before as well as after the lines of perforations **58** and **60** are broken, it enables the user to keep their disposable absorbent article **10** or **10'** snug about their waist at all times.

While the invention has been described in conjunction with several specific embodiments, it is to be understood that many alternatives, modifications and variations will be apparent to those skilled in the art in light of the aforegoing description. Accordingly, this invention is intended to embrace all such alternatives, modifications and variations that fall within the spirit and scope of the appended claims.

We claim:

1. A method of forming a disposable, refastenable absorbent article, said method comprising the steps of:

a) directing a first material parallel to and spaced apart from a second material, said first material having a width;

b) forming a pair of spaced apart lines of perforations across the width of said first material;

c) securing a pair of attachment members to said first material, each attachment member bridging across one of said pair of lines of perforations and being removeably attached to said first material;

d) securing an absorbent assembly across said first and second materials to form a subassembly having a transverse centerline;

e) folding said subassembly on said transverse centerline;

f) bonding said first and second materials together by first and second seam lines, each of said first and second seam lines being aligned non-parallel to and located outward from one of said pair of lines of perforations to form a waist opening and a pair of leg openings; and

g) separating said first and second materials at locations outward from each of said first and second seam lines to form a disposable, refastenable absorbent article.

2. The method of claim **1** wherein said first material is elastic.

3. The method of claim **1** wherein said first material is an elastic laminate.

4. The method of claim **1** wherein said second material is elastic.

5. The method of claim **4** wherein said second material is an elastic laminate.

6. The method of claim **1** wherein each of said pair of lines of perforations is non-linear.

7. The method of claim 6 wherein each of said pair of lines of perforations has an arcuate configuration.

8. The method of claim 1 wherein for each of said pair of lines of perforations one line of perforations is a mirror image of said other line of perforations.

9. The method of claim 1 wherein each of said pair of lines of perforations is aligned at an angle to one of said first and second seam lines.

10. A method of forming a disposable, refastenable absorbent article, said method comprising the steps of:

a) directing a first elastic laminate parallel to and spaced apart from a second elastic laminate, said first laminate having a width;

b) forming a pair of spaced apart, non-linear lines of perforations across the width of said first laminate;

c) securing a pair of attachment members to said first laminate, each attachment member bridging across one of said pair of lines of perforations and being removeably attached at one end to said first laminate;

d) securing an absorbent assembly perpendicularly across said first and second laminates to form a subassembly having a transverse centerline;

e) folding said subassembly on said transverse centerline;

f) bonding said first and second laminates together by first and second seam lines, each of said first and second seam lines being aligned laterally outward from one of said pair of lines of perforations to form a waist opening and a pair of leg openings; and

g) separating said first and second laminates at locations outward from each of said first and second seam lines to form a disposable, refastenable absorbent article.

11. The method of claim 10 wherein each of said pair of lines of perforations is aligned non-parallel to one of said first and second seam lines.

12. The method of claim 10 wherein each of said pair of lines of perforations has an arcuate configuration.

13. The method of claim 10 wherein each of said pair of lines of perforations has a sinusoidal configuration.

14. The method of claim 10 wherein said absorbent assembly includes a liquid permeable bodyside liner, a liquid-impermeable backsheet and an absorbent positioned therebetween, said liner and said backsheet being joined together and said backsheet being secured to both of said first and second laminates.

15. The method of claim 10 wherein each of said pair of lines of perforations is tearable.

16. A method of forming a disposable, refastenable absorbent article comprising the steps of:

a) splitting a first material into a first elongated strip and a second elongated strip and aligning said first elongated strip over said second elongated strip;

b) splitting a second material into a first elongated strip and a second elongated strip and aligning said first elongated strip over said second elongated strip;

c) routing at least one elastic strand between said first and second elongated strips of said first and second materials and securing said at least one elastic strand to said respective first and second elongated strips to form a first laminate and a second laminate, each of said first and second laminates being aligned parallel to one another and being spaced apart, and each of said laminates having a width;

d) forming a pair of spaced apart, non-linear lines of perforations across the width of said first laminate;

e) securing a pair of attachment members to said first laminate, each attachment member bridging across one of said pair of lines of perforations and being removeably attached at one end to said first laminate;

f) securing an absorbent assembly perpendicularly across said first and second laminates to form a subassembly having a transverse centerline;

g) folding said subassembly on said transverse centerline;

h) bonding said first and second laminates together by first and second seam lines, each of said first and second seam lines being aligned laterally outward from one of said pair of lines of perforations to form a waist opening and a pair of leg openings; and

i) separating said first and second laminates at locations laterally outward from each of said first and second seam lines to form a disposable, refastenable absorbent article.

17. The method of claim 16 wherein said subassembly has a generally H-shaped configuration.

18. The method of claim 17 wherein a portion of said generally H-shaped configuration is cut to form leg cutouts.

19. The method of claim 16 wherein a multiplicity of refastenable absorbent articles is sequentially formed by severing each subassembly from an adjacent subassembly.

20. The method of claim 16 wherein said absorbent assembly includes a liquid permeable bodyside liner, a liquid-impermeable backsheet and an absorbent positioned therebetween, said liner and said backsheet being joined together and said backsheet being secured to both of said first and second laminates.

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